

In the Claims

1. (Previously Presented) A process of forming a magnetic assembly having at least one magnetic layer having dimensions of thickness, width and length, and at least one printable substrate layer having dimensions of thickness, width and length, comprising the steps of:
 - a) providing a magnetic hot melt composition at an elevated temperature, said magnetic hot melt composition comprising about 75 wt-% to about 95 wt-% of at least one magnetic material and about 5 wt-% to about 25 wt-% of at least one thermoplastic polymer;
 - b) directly applying said magnetic hot melt composition at an elevated temperature when it is pliable to a printable substrate layer.
2. (Original) The process of Claim 1 wherein said applying step b) affixes said magnetic layer to said printable substrate layer in dimensions of thickness and width in final form.
3. (Original) The process of Claim 1 wherein said applying step b) affixes said magnetic layer to said printable substrate layer in dimensions of thickness, width and length in final form.
4. (Original) The process of Claim 1 further comprising subjecting said magnetic assembly to a strong magnetic field sufficient to result in a permanent magnetic effect in the assembly.
5. (Original) The process of Claim 4 wherein the magnetic composition is at an elevated temperature while subjecting said magnetic assembly to said magnetic field.
6. (Previously Presented) The process of Claim 4 wherein said magnetic composition is at ambient temperature.
7. (Original) The process of Claim 4 wherein said magnetizing step is accomplished after said applying step during said forming process.
8. (Original) The process of Claim 1 further comprising the step of printing said printable substrate.
9. (Original) The process of Claim 1 wherein said magnetic assembly is formed in a roll form on a web.

10. (Original) The process of Claim 1 wherein said magnetic assembly is formed in sheet form.
11. (Original) A process for forming a pad article comprising forming a plurality of magnetic sheet assemblies by the process of Claim 1 and layering the sheet assemblies together to form a stacked pad.
12. (Original) The process of Claim 11 wherein said plurality are bound together with an adhesive or shrink wrapped.
13. (Original) The process of Claim 1 wherein said temperature of application is from about 135 °C to about 190 °C.
14. (Original) The process of Claim 1 wherein said forming step includes a step selected from roll coating, gravure coating, screen printing and slot-die coating.
15. (Original) The process of Claim 1 wherein said forming step includes extruding.
16. (Original) The process of Claim 1 wherein said magnetic material has the following general formula:



wherein M represents a divalent metal.

17. (Original) The process of Claim 16 wherein said divalent metal is barium, strontium, lead or mixture thereof.
18. (Canceled)
19. (Original) The process of Claim 1 wherein the thermoplastic binder comprises at least one polyalphaolefin.
20. (Original) The process of Claim 19 wherein said at least one polyalphaolefin is an amorphous polypropylene or an interpolymers of ethylene and at least one alphaolefin.
21. (Original) The process of Claim 1 wherein said magnetic material has a particle size of about 40 microns or less.
22. (Previously Presented) The process of Claim 1 wherein said at least one magnetic layer has a thickness of about 50 μm to about 765 μm .
23. (Previously Presented) The process of Claim 1 wherein said at least one magnetic layer has a thickness of about 50 μm to about 510 μm .
24. (Previously Presented) The process of Claim 1 wherein said at least one magnetic layer has a thickness of about 50 μm to about 305 μm .

25. (Original) The process of Claim 1 wherein said magnetic composition is applied to said printable substrate in the form of at least one ribbon.
26. (Original) The process of Claim 25 further comprising the step of pressing said at least one ribbon to said printable substrate.
27. (Original) The process of Claim 25 wherein said at least one ribbon is pressed to said substrate with a chill roll.
28. (Original) The process of Claim 25 wherein said at least one ribbon has substantially the same length and width as said printable substrate.
29. (Original) The process of Claim 26 wherein said at least one ribbon is discontinuous with said printable substrate.
30. (Original) The process of Claim 1 wherein said printable layer comprises paper, metal, fabric, or plastic.
31. (Original) The process of Claim 1 wherein said printable layer is further treated with a varnish, lacquer, film or mixture thereof.
32. (Original) The process of Claim 1 wherein said magnetic layer is further joined to a release liner.
33. (Original) The process of Claim 32 wherein said release liner is adhered to an article through the use of an adhesive.
34. (Original) The process of Claim 33 wherein said article is a magazine, book, food package, beverage container, envelope or box.
35. (Original) The process of Claim 32 further comprising the step of removing said magnetic assembly from said release liner.
36. (Original) The process of Claim 32 wherein said magnetic assembly further has an overlamine over said printable substrate layer.
37. (Original) The process of Claim 32 wherein said overlamine is perforated in substantially the same dimensions as said magnetic assembly.
38. (Original) The process of Claim 1 wherein said magnetic substrate is a reminder, business card, greeting card, postcard, label, advertisement, coupon, calendar, schedule, recipe or promotional card.
39. (Original) The process of Claim 1 wherein said magnetic layer is continuous with said printable layer.

40. (Original) The process of Claim 1 wherein said magnetic layer is applied to said printable layer in a discontinuous pattern.

41. (Original) The process of Claim 1 wherein said magnetic layer and said printable layer are of equivalent length and width.

42. (Withdrawn) An article which is capable of adhering to a magnetic surface having at least one printable substrate layer and at least one magnetic layer made by the process of Claim 1.

43-44 (Canceled)

45. (Withdrawn) An article which is capable of self-adhering to a magnetic metal surface comprising:

- a) a first magnetic layer comprising from about 5 wt-% to about 30 wt-% of at least one polyalphaolefin binder and about 70 wt-% to about 95 wt-% of at least one magnetic material having the following general structure:
- b) a second layer of a printable material;

wherein said first layer and said second layer are adhered together without the use of an additional adhesive layer.

46. (Withdrawn) The article of Claim 45 wherein said article is a reminder, a greeting card, postcard, coupon, label, business card, advertisement, calendar, recipe, schedule, or promotional card.

47. (Withdrawn) The article of Claim 45 wherein said printable material is paper, plastic or metal.

48. (Withdrawn-Currently Amended) The article of Claim 45 wherein said first layer has a thickness of about 50 μm to about 765 μm .

49. (Withdrawn) The article of Claim 45 wherein said polyalphaolefin is an amorphous polypropylene or copolymer thereof, or an interpolymers of ethylene and at least one alphaolefin.

50. (Withdrawn-Currently Amended) An article which is capable of self-adhering to a metal surface comprising:

- a) a first magnetic layer which is about 50 μm to about 765 μm thick comprising from about 5 wt-% to about 30 wt-% of at least one thermoplastic binder and about 70 wt-% to about 95 wt-% of at least one magnetic material; and

- b) a second layer of a printable material;
wherein said first layer and said second layer are adhered together without the use of an additional adhesive layer.
51. (Withdrawn) The article of Claim 50 wherein said thermoplastic binder comprises at least one selected from the group consisting of natural rubbers, block copolymers, polyolefins, polyalphaolefins, polyesters, polyamides, nylons, polyurethanes, copolymers thereof, or mixtures thereof.
52. (Withdrawn) The article of Claim 50 wherein said magnetic material comprises at least one compound having the formula $M^{2+}O_6Fe_2O_3$ wherein M represents a divalent metal.
53. (Withdrawn) The article of Claim 52 wherein said divalent metal is barium, strontium, lead or mixture thereof.
54. (Withdrawn-Currently Amended) The article of Claim 50 wherein said first magnetic layer is about 50 μm to about 510 μm thick.
55. (Withdrawn-Currently Amended) The article of Claim 50 wherein said first magnetic layer is about 50 μm to about 305 μm .
56. (Withdrawn) A magnetic composition comprising:
- comprising about 5 wt-% to about 30 wt-% of at least one polyalphaolefin binder; and
 - about 70 wt-% to about 95 wt-% of at least one magnetic material.
57. (Withdrawn) The composition of Claim 56 wherein said polyalphaolefin is an amorphous polypropylene or a copolymer or terpolymer thereof; an interpolymers of ethylene and at least one alphaolefin; or mixture thereof.
58. (Withdrawn) The composition of Claim 57 wherein said magnetic material has the following general structure:
- $$M^{2+}O_6Fe_2O_3$$
- wherein M represents a divalent metal.
59. (Withdrawn) The composition of Claim 58 wherein said divalent metal is barium, strontium, lead, or mixture thereof.
60. (Currently Amended) A process of forming a magnetic assembly having at least one magnetic layer having dimensions of thickness, width and length, and at least one

printable substrate layer having dimensions of thickness, width and length, comprising the step of extruding in final form at an elevated temperature a magnetic composition comprising about 70 wt-% to about 95 wt-% of at least one magnetic material and about 5 wt-% to about 30 wt-% of at least one thermoplastic polymer which is a member selected from the group consisting of natural rubbers, block copolymers, polyolefins, polyalphaolefins, ~~polyesters, polyamides, nylons, polyurethanes,~~ copolymers thereof, and mixtures thereof onto a printable substrate layer.

61-71 (Canceled)

72. (Previously Presented) A process of forming a magnetic assembly having at least one magnetic layer having dimensions of thickness, width and length, and at least one printable substrate layer having dimensions of thickness, width and length, comprising the steps of:

- a) providing a ~~molten~~ hot melt magnetic composition comprising about 85 wt-% to about 95 wt-% of at least one magnetic material and about 5 wt-% to about 15 wt-% of at least one thermoplastic binder; and
- b) directly applying said magnetic layer at an elevated temperature when it is pliable to a printable substrate layer.

73-74. (Canceled)

75. (Previously Presented) A process of forming a pad article comprising a plurality of magnetic sheet assemblies having at least one magnetic layer having dimensions of thickness, width and length, and at least one printable substrate layer having dimensions of thickness, width and length, comprising the steps of:

- a) providing a ~~molten~~ hot melt magnetic composition comprising about 70 wt-% to about 95 wt-% of at least one magnetic material and about 5 wt-% to about 30 wt-% of at least one thermoplastic polymer;
- b) directly applying said magnetic layer at an elevated temperature when it is pliable to a printable substrate layer to form a magnetic assembly;
- c) forming said ~~printable substrate layer~~ magnetic assembly of b) into a plurality of magnetic sheet assemblies; and
- d) layering the sheet assemblies together to form a stacked pad.

76. (Previously Presented) The process of claim 75 further comprising the step of binding said sheet assemblies together.

77. (Previously Presented) A process of forming a magnetic assembly having at least one magnetic layer having dimensions of thickness, width and length, and at least one printable substrate layer having dimensions of thickness, width and length, comprising the steps of:

- a) providing a molten magnetic composition comprising about 70 wt-% to about 95 wt-% of at least one magnetic material and about 5 wt-% to about 30 wt-% of at least one thermoplastic polymer;
- b) directly applying said magnetic layer at an elevated temperature when it is pliable to a printable substrate layer to form a magnetic assembly; and
- c) magnetizing said magnetic layer when it is at an elevated temperature.

78. (Previously Presented) The process of claim 60 wherein said at least one thermoplastic polymer is an ethylene vinyl acetate copolymer.

79. (New) The method of claim 1 wherein said magnetic hot melt composition is directly applied to said printable substrate layer at a rate of greater than 80 to about 500 feet/minute.

80. (New) The method of claim 1 wherein said magnetic hot melt composition is directly applied to said printable substrate layer at a rate of about 250 feet/minute to about 500 feet/minute.